

ABSTRACT

An expander is provided in which a rotor (22) is rotated by supplying high-temperature, high-pressure steam to an expansion chamber (43) defined
5 between a piston (42) and a cylinder sleeve (41) so that the piston (42) pushes a swash plate (31). Since an annular heat-insulating space (70) is formed in a rotor head (38) facing the expansion chamber (43), it is possible to suppress the escape, to the rotor (22), of the heat of high-temperature, high-pressure steam supplied to the expansion chamber (43), thereby preventing the heat
10 efficiency from deteriorating. Moreover, since the expansion chamber (43) is sealed by interposing a metal gasket (36) between the end face of the cylinder sleeve (41) and the end face of the rotor head (38), in comparison with a case in which the expansion chamber (43) is sealed via a thick annular seal, unnecessary volume around the seal can be reduced, thus ensuring that the
15 expander has a large volume ratio (expansion ratio) and thereby improving the thermal efficiency, which enables the output to be increased.